

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A multilayered gas sensing element for incorporation into a gas sensor installed in an exhaust system of an internal combustion engine, the multilayered gas sensing element comprising:

laminated layers comprising at least one solid electrolytic sheet containing zirconia and yttria and at least one insulating sheet containing alumina; and

a crystal phase containing silicon dioxide which intervenes between said solid electrolytic sheet and said insulating sheet at least at a part of a bonding boundary between said solid electrolytic sheet and said insulating sheet, wherein said insulating sheet has a side surface to which a heater is directly attached to transfer heat generated in the heater to said insulating sheet and said solid electrolytic sheet.

2. (Previously presented) A multilayered gas sensing element as in claim 1, wherein said crystal phase further contains at least one component selected from the group consisting of: calcium oxide, magnesium oxide, barium oxide, and strontium oxide.

3. (Previously presented) A multilayered gas sensing element as in claim 1, wherein said bonding boundary between said solid electrolytic sheet and said insulating sheet is undulated.

4. (Previously presented) A multilayered gas sensing element as in claim 1, wherein said solid electrolytic sheet and said insulating sheet are directly bonded to each other at a remaining part of the bonding boundary, so that a crystal lattice of said

solid electrolytic sheet is directly connected to a crystal lattice of said insulating sheet at the remaining part of said bonding boundary.

5. (Previously presented) A multilayered gas sensing element as in claim 1, wherein a thermal expansion coefficient difference between said solid electrolytic sheet and said insulating sheet is equal to or less than 2×10^{-6} .

6. (Previously presented) A multilayered gas sensing element as in claim 1, wherein a sintering contraction coefficient difference between said solid electrolytic sheet and said insulating sheet is equal to or less than 3%.

Claims 7-13. (Canceled).

14. (Previously presented) The multilayered gas sensing element in accordance with claim 4, wherein a specific face of said crystal lattice of said solid electrolytic sheet specified by a Miller index of $(2 \bar{1} \bar{1} 0)$ is directly connected to a specific face of the crystal lattice of said insulating sheet specified by a Miller index of $(1 0 0)$.

Claim 15. (Canceled).